REMARKS

Claim Status

Claims 1 and 3-11 are now pending, with claims 1 and 10 being the sole independent claims. Claim 2 has been canceled. Claims 1 and 3-10 have been amended. Claims 1 and 3-9 have been amended to clarify minor claim wording. Dependent claim 11 has been added. Support for dependent claim 11 may be found, for example, at paragraph [0016] of U.S. Publication No. 2007/0136210 (i.e., the instant application). No new matter has been added. Reconsideration of the application, as herein amended, is respectfully requested.

Overview of the Office Action

Claim 10 stands rejected under 35 U.S.C. §101 as directed to non-statutory subject matter.

Claims 1-10 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Pub. No. 2004/0167859 ("*Mirabella*").

Applicants have carefully considered the Examiner's rejections and the comments provided in support thereof. For the following reasons, applicants assert that all claims now pending in the present application are patentable over the cited art.

Descriptive Summary of the Prior Art

Mirabella relates to "a software license management system configurable for post-use payment business models, comprising: front-end server configured to control usage of licensed software, generate an authenticatable report including information of the usage according to a report schedule, and securely transmit the authenticatable report to a designated destination; and back-end server corresponding to the designated destination and configured to receive, authenticate, and process the authenticatable report to generate processed information, and

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provide the processed information to business operations software for post-use payment business model purposes" (see paragraph [0012]).

Summary of the Claimed Subject Matter

The following descriptive details are based on the specification. They are provided only for the convenience of the Examiner as part of the discussion presented herein, and are not intended to argue limitations which are unclaimed.

The specification discloses a system and method for automatically controlling fraud in an electronic transaction system. When a user initiates a session in the electronic transaction system, an element is generated and stored in a database in association with information identifying the user. Each time that the user commands the execution of an operation during the session, an equation is determined or defined that is satisfied by the element stored in the database. When a sufficient number of operations has been effected, a system of independent equations consisting of the determined equations can be solved to deduce the element. By then consulting the database, the corresponding information identifying the user can be deduced or determined from the element thus obtained by solving the equations.

In the sense of the claimed invention, a session comprises a defined period of time during which a user is connected to a given online service and is authorized by the service provider to perform a certain number of operations (see paragraph [0013] of the instant specification). The method of the invention provides the ability to reveal to the service provider the identity of a user only if the user has performed a number n of operations during the same session that is greater than that authorized by the service provider (see paragraph [0014]).

Thus, in the claimed method the identity of the user is disclosed to the service provider only if the user has performed during the same session a number n of operations that is greater

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than the number of operations authorized for the session. In this manner, the disclosed method normally preserves the anonymity of a user, so long as the user complies with authorization limits that have been set by the service provider (see paragraph [0016].

Patentability of Independent Claim 10 under 35 U.S.C. §101

The Examiner (at pg. 2 of the Office Action) has stated that:

> [Claim 10 fails] ... to assert the program recorded on an appropriate computer-readable medium so as to be structurally and functionally interrelated to the medium and permit the function of the descriptive material to be realized. Since a computer program is merely a set of instructions capable of being executed by a computer without a computer-readable medium needed to realize the computer program's functionality, it is regarded as nonstatutory functional descriptive material.

In response to the foregoing, applicants have amended claim 10 to place it into independent form, such that claim 10 now recites a computer readable medium encoded with a computer program executed by a computer that causes automatic control of fraud in an electronic transaction system. Independent claim 10 now also recites that the computer program includes the program code for executing each of the corresponding method steps recited in independent claim 1. In view of the foregoing, independent claim 10 as now amended is properly directed to statutory subject matter; reconsideration and withdrawal of the rejection under 35 U.S.C. §101 are accordingly deemed to be in order, and early notice to that effect is requested.

Patentability of the Independent Claims under 35 U.S.C. §102

Independent claim 1 has been amended to clarify the salient features of the claimed invention. Thus, independent claim 1 now recites, *inter alia*, the steps of "generating an element and storing the element in a database in association with information identifying a session initiated by a user when the user initiates the session in the electronic transaction system", "each

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time during the session that the user commands the execution of an operation, determining an equation that is satisfied by the element stored in the database", "solving a system of independent equations comprising the determined equations to deduce the element therefrom when a number of the determined equations is greater than a number of authorized operations" and "deducing from the obtained element, by consulting the database, the associated information identifying the user that initiated the session". Independent claims 9 and 10 have been amended to recite elements and method steps corresponding to the method of independent claim 1. No new matter has been added.

The Examiner (at pg. 3 of the Office Action) asserts that:

> Mirabella teach and describe a method of automatically controlling fraud in an electronic transaction system, comprising ... deducing from the element obtained in this way the corresponding information identifying the user (Fig.1-10, [0093-0102]).

Applicants disagree.

Mirabella discloses a software license management system configurable for post-use payment business models. Specifically, an object of the software license management system of *Mirabella* is to detect and to inform a vendor that a customer who owns a number of licenses has used more than that number of licenses on a number of occasions during a certain period of time (see, e.g., paragraph [0100]; FIG. 9). Applicants acknowledge that *Mirabella* provides a method for automatically controlling fraud in an electronic transaction system. However, the software/architecture described by *Mirabella* performs fraud control in a manner that significantly differs in operation and functionality from the fraud control method recited in independent claim 1.

Mirabella describes an architecture in which a front-end server, which is located at the customer side, observes the use of those licenses purchased by the customer on a pool of computers and sends regular report logs on the use of licenses to a back-end server that is located

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on the vendor side (see, e.g., FIGS. 1-5). Complete customer anonymity is neither present nor described in the *Mirabella* system.

Mirabella (paragraphs [0048] to [0092]; FIG. 6) explains how its report logs are obtained, e.g., by using specific modules to configure the report generator, to parameterize the frequency with which report logs are generated, and to provide information on license terms. The license manager controls usage of the licensed software according to the license terms and generates, as appropriate, report logs of that usage (also see, e.g., paragraph [0048]). *Mirabella* additionally explains how the back-end server (i.e., the server at the vendor side) processes report logs that are received from the front-end server, as well as the way in which report logs are generated and the way that these report logs are sent to the back-end servers and made secure (with respect to third parties) to prevent supplementary fraud.

At paragraphs [0053] to [0055], *Mirabella* describes the various report formats that are presented. These reports, however, only provide a description of "over" or "under" usage, and are sent only in the case of over-usage. *Mirabella* (paragraph [0055]) explains that as soon as privacy issues are implicated, the license manager at the customer side codes the user and host identifications so that the vendor (i.e., the back-end server or server at the vendor side) can not correlate the user and their usage levels.

Mirabella thus teaches a system in which the license manager controls the usage of licenses at the customer side and provides notifications to the software management system (i.e., triggers the generation of report logs), and always possesses user visibility or identity of the host or customer which uses a license (i.e., whether the license is being used according to the terms of the license or when the license is over-used). In cases of over-usage, *Mirabella* teaches that user information is coded at the license manager side to thereby "respect" the privacy of the user when the report log is sent to the vendor. That is, the license manager always has access to the

identity of the user, even though the license manager may not provide that user identity to the vendor or back-side server. The vendor (i.e., the back-end server or server at the vendor side) is not provided with the ability to identify, from the content of the report log, the user or the host responsible for the over-usage – although that identifying information is known to the license manager at the host system. In the claimed invention, when over-usage occurs, the identity of the user must be deduced from the defined equations and by using the information which identifies the session initiated by the user (see, e.g., paragraphs [0036] and [42] of the instant specification).

Mirabella, moreover, teaches that when a user initiates a session (i.e., runs a software module or program), the license manager generates and memorizes an element, e.g., a process identifier (PiD), and expressly associates this PiD with the user identity or the host identity which is consistent with the old and well-known manner in which license managers operate. By supervising the PiD, the license manager can then determine information such as how long the user uses the software and the operations that are performed. Accordingly, the conventional PiD of *Mirabella* is at all times directly associated with the identity of the user/host.

In contrast, independent claim 1 recites the step of "generating an element and storing the element in a database in association with information identifying a session initiated by a user when the user initiates the session in the electronic transaction system". That is, an element is generated and associated with information identifying the session initiated by the user. This information may then be used to deduce the identity of the user. Thus, the "element" recited in now amended independent claim 1 is not comparable to the PiD of a license.

It thus follows that *Mirabella* fails to teach or suggest a system in which, when a user initiates a session, an element is generated by the system for controlling fraud, and that the element is stored in a database of the system in association with information identifying the user

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associated with the session. That is, *Mirabella* <u>fails</u> to teach or suggest the step of "generating an element and storing the element in a database in association with information identifying a session initiated by a user when the user initiates the session in the electronic transaction system", as recited in now amended independent claim 1.

Moreover, *Mirabella* <u>fails</u> to teach or suggest that whenever or each time that the user commands the execution of an operation during the session, an <u>equation</u> is defined that is satisfied by the element. That is, *Mirabella* fails to or suggest the step of "each time during the session that the user commands the execution of an operation, determining an equation that is satisfied by the element stored in the database", as recited in now amended independent claim 1.

There is no teaching or suggestion whatsoever in *Mirabella* that when the number of determined or defined equations is greater than the number of authorized operations, a system of independent equations comprising the determined or defined equations is solved to deduce the element therefrom, and that by then consulting the database, the associated information which identifies the user that initiated the session is deduced from the obtained element. *Mirabella* thus <u>fails</u> to teach or suggest the steps of "solving a system of independent equations comprising the determined equations to deduce the element therefrom when a number of the determined equations is greater than a number of authorized operations" and "deducing from the obtained element, by consulting the database, the associated information identifying the user that initiated the session", as expressly recited in now amended independent claim 1.

The claimed method provides a system for controlling fraud in which a user remains anonymous unless he/she performs, during a current session, a given number of operations that is greater than the number of operations he/she is authorized to perform during a session of the transaction system. In accordance with the claimed method, if the user performs a number of operations greater than the number of authorized operations, the element that was associated to a

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session ID for that user in the system for controlling fraud during the start of the session can be calculated/deduced by solving a system of independent equations. Indeed, prior to performing the number of authorized operations, there is no unique solution to the system of independent equations and, thus, no possibility to obtain the element. Once the element has been deduced from the system of independent equations, it then becomes possible to determine the identifier of the session associated with the element in the database memorized by the fraud control system. Accordingly, it becomes possible for the transaction system to identify a fraudulent user from the session identifier. The claimed method thus advantageously provides anonymity of the user until he/she has exceeded the number of authorized operations. *Mirabella* fails to teach or suggest a system or method that would or could achieve these advantageous results, let alone in the recited manner. In view of the foregoing, *Mirabella* fails to teach or suggest the subject matter of independent claim 1.

Independent claim 9 defines a system that recites elements corresponding to the method of independent claim 1. Independent claim 10 has been amended to place it into independent form and to recite a computer-readable information medium encoded with a computer program executed by a computer that causes automatic control of fraud in an electronic transaction system. Independent claim 10 now also recites that the computer program includes the program code for executing each corresponding method step of independent claim 1. Independent claims 9 and 10 are therefore deemed to be patentable over *Mirabella* for the same reasons as is independent method claim 1.

Reconsideration and withdrawal of the rejection of claims 1, 9 and 10 under 35 U.S.C. §102 are thus deemed to be in order, and early notice to that effect is solicited.

Moreover, by virtue of the above-discussed differences between the recitations recited in independent claims 1, 9 and 10 and the teachings of *Mirabella*, and the lack of any clear

motivation for modifying *Mirabella* to achieve applicants' claimed invention, independent claims

1, 9 and 10 are likewise deemed to be patentable over *Mirabella* under 35 U.S.C. §103.

Dependent Claims

In view of the patentability of independent claim 1 for at least the reasons presented

above, each of dependent claims 3-9, as well as new dependent claim 11, is believed to be

patentable therewith over the cited art. Moreover, each of dependent claims 3-9 and 11

additionally includes features that serve to still further distinguish the claimed invention over the
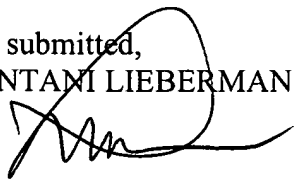
applied art.

Conclusion

Based on all of the above, applicants submit that the present application is now in full and

proper condition for allowance. Prompt and favorable action to this effect, and early passage of

the application to issue, are once more solicited.

Should the Examiner have any comments, questions, suggestions or objections, the

Examiner is respectfully requested to telephone the undersigned to facilitate an early resolution

of any outstanding issues.

Respectfully submitted,
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Dated: September 17, 2009